



Public Works Department

August 8, 2010

Mr. James Marshall
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114

SUBJECT: COMMENTS REGARDING PROPOSED WASTE DISCHARGE REQUIREMENTS AND TIME SCHEDULE ORDER FOR THE CITY OF GALT WASTEWATER TREATMENT PLANT AND RECLAMATION FACILITY

Dear Jim,

The City of Galt (City) is pleased to provide comments on the Proposed Waste Discharge Requirements and Time Schedule Order for the City's Wastewater Treatment Plant and Reclamation Facility. Identified within this letter are the remaining issues that need to be addressed within the adopted permit. We appreciate the time and effort that Regional Water Quality Control Board (RWQCB) staff has devoted to development of the proposed orders and look forward to mutually acceptable resolution of these remaining issues.

The Effluent Limitations for Copper should be Revised to Reflect Representative Data.

The Tentative Order includes proposed effluent limitations for copper of 3.1 ug/L (AMEL) and 4.3 ug/L (MDEL). However, the limits were calculated based on a single data point which falls outside of EPA guidelines, resulting in overly stringent limitations. The proposed limitations are extremely difficult to comply with in municipal effluent, even with advanced tertiary treatment. The RPA states that the maximum observed upstream receiving water total copper concentration of 4.8 ug/L exceeded the CTR criteria (Page F-20.) The RPA further states that due to this exceedance within the receiving water, the assumptions of the 2006 Study¹ were not met and the procedures outlined within the 2006 Study cannot be utilized. However, this single receiving water data point is from March 11, 2002. Per EPA Guidance, effluent data to be utilized in the reporting of data for NPDES renewal must be "based on at least three pollutant scans

¹ Emerick, R.W.; Borroum, Y.; & Pedri, J.E., 2006. California and National Toxics Rule Implementation and Development of Protective Hardness Based Metal Effluent Limitations. WEFTEC, Chicago, Ill.

and must be no more than four and one-half years old.” (NPDES permit application, EPA Form 3510-2A, at p. 10; see also *Woodland v. California Regional Water Quality Control Board*, Case No. RG04-188200 (May 16, 2005) at p. 12-13 (limiting RPA analysis to the most recent three years of data.)) Similarly, where valid, more recent receiving water data exist, the Regional Water Board should exclude older measurements that appear to be outliers or that do not represent current conditions. The SIP directs that the “RWQCB shall use all available, *valid*, relevant, *representative* data and information.” (SIP at 3.) Scientific reliability is not achieved by a methodology that allows a skewing of results by a single invalid or non-representative data point. Reliance on an isolated data point that was never repeated is not “representative.”

Thirteen separate measurements of copper for the receiving water were taken within the last five years. Given the availability of this more recent data, there is no reasonable justification for relying on a single data point from 2002 to dictate the methodology used to calculate the effluent limits. *Within the last five years, there were no receiving water copper concentrations above the criterion utilizing paired data.* Thus, the assumptions of the 2006 Study are met, and the effluent limits for copper should be calculated in accordance with the 2006 Study. When calculated per the 2006 Study procedures, the AMEL and MDEL are 4.9 and 6.9 ug/L, respectively.

Therefore, the City requests that the Regional Water Board (1) Use a data set that is reflective of current receiving water conditions that is within the 4 ½-year time frame specified within the NPDES permit by the EPA for ECA evaluation, and (2) Revise the final effluent limitations for copper in accordance with the 2006 Study.

The Receiving Water Limitation for Temperature Should be Removed and the City Required to Conduct a Site-specific Study.

The Tentative Order includes a proposed limitation that the discharge may not cause “the natural temperature” of the receiving water to be increased more than 5 degrees. (Receiving Water Limitation V.A.15.) The source of this requirement is the Water Quality Control Plan for the Sacramento San Joaquin River Basins (Basin Plan), which provides “At no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5°F above natural receiving water temperature.” (Basin Plan at III-8.00.) This Basin Plan provision does not apply to ephemeral or effluent dependent waters such as Laguna Creek, where there is no upstream natural temperature. In its precedential order regarding the permit issued for the City of Vacaville’s Easterly wastewater treatment plant, the State Water Resources Control Board determined that the Basin Plan temperature objective did not apply to Vacaville’s discharge because “Old Alamo Creek has no readily identifiable receiving water temperature.” (*In the Matter of the Review on Own Motion of Waste Discharge Requirements for Vacaville’s Easterly Wastewater Treatment Plant*, Order WQ 2002-0015 at p. 49.)

“Natural receiving water temperature” is defined in the State Water Board’s Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters

and Enclosed Bays and Estuaries of California (1975) (Thermal Plan) as “[t]he temperature of the receiving water at locations, depths, and times which represent conditions unaffected by any elevated temperature waste discharge or irrigation return waters.” (*Id.* at p. 48.) The State Water Board concluded that in cases where flow is intermittent “[e]stablishing a natural receiving water temperature is problematic since there may be ‘natural’ flows only during short periods of the year.” (*Id.* at p. 49.) Thus, the Board directed that the Central Valley Regional Board should impose appropriate temperature controls on the Easterly treatment plant discharge *after* a site-specific study was completed for Old Alamo Creek and downstream waters. (*Id.* at p. 48.)

For this reason, the Regional Water Board should remove the receiving water limitation for temperature and replace it with a special study to determine appropriate site-specific limitations for the City’s discharge.

Moreover, the City is also concerned that, as drafted, the limitation will be interpreted as an instantaneous maximum. The Tentative Order states that compliance with the five degree differential is to be determined “based on the difference in temperature at RSW-001 and RSW-002.” (Tentative Order at p. 19.) This suggests that a single grab sample would result in a violation of the limitation. Yet the Basin Plan provides that “in determining compliance with the water quality objectives for temperature, appropriate averaging periods may be applied provided that beneficial uses will be fully protected.” (Basin Plan at III-8.00.)

If the receiving water limitation for temperature is not removed, the City requests that the compliance determination language be modified to provide for appropriate averaging periods.

The Effluent Limitation for Bis-2 Should be Removed Because the Effluent Does Not Demonstrate Reasonable Potential.

The Tentative order includes proposed effluent limitations for Bis (2-ethylhexyl) phthalate (Bis-2) of 1.8 and 3.6 micrograms per liter (ug/L) for the AMEL and MDEL, respectively. The data utilized for the RPA analysis was from the City of Galt Wastewater Treatment Plant Effluent and Receiving Water Quality Study Report (“Effluent and Receiving Water Special Study”), as it was more representative of what the effluent quality would be subsequent to installation of an effluent pipeline. All but one of the Bis-2 detections were accompanied by simultaneous detections in field blanks. Thus, a majority of the Bis-2 detections for the effluent were suspected of being false positives. Only a single Bis-2 detection on March 6, 2008, was not accompanied by a false positive in the field blank, which is the basis for the finding of reasonable potential for Bis-2. As part of the Effluent and Receiving Water Special Study, a duplicate sample was collected on March 6, 2008, and Bis-2 was not detected in the duplicate sample. The fact that the duplicate sample results were non-detect supports the conclusion that the effluent detection on March 6, 2008, was also a false positive. The State Water Board has found it appropriate to exclude from the RPA a sample in

which Bis-2 was detected where a split sample measured a value below the water quality objective. (*In the Matter of the Petition of the Environmental Law Foundation, et. al for Review of Waste Discharge Requirements for the City of Tracy*, Order WQ 2009-003) at p. 18.) All other detections were accompanied by a positive in the field blank and are not valid. Other than these suspect data points, there were no detections of Bis-2 during the Effluent and Receiving Water Special Study and consequently, no reasonable potential. In addition, since the installation of the effluent pipeline in November of 2009, all samples measured for Bis-2 have been non-detects. This most recent data further demonstrates that there is no reasonable potential.

Therefore, the effluent limit for Bis-2 should be removed from the Tentative Order.

The Instantaneous Maximum for pH should be revised from 8.0 to 8.2.

The City previously elected to restrict their pH Instantaneous Maximum to 8.0 in order to generate a final effluent limit for ammonia that was achievable with the accepted treatment technology utilized at the wastewater treatment plant, with the knowledge that the City's effluent pH has consistently been below the requirement when directly discharging to Laguna Creek. Although we anticipate that the City's effluent pH will continue to be below a pH of 8.0, we have observed that the calculation of the final effluent ammonia limit will remain the same up to an Instantaneous Maximum pH limit of 8.2. Therefore, the City requests that the Instantaneous Maximum pH be revised to 8.2. Thus, the only portion that would require modification to the calculation would be the acute ECA, which would change from 5.61 to 3.83. However, the chronic LTA, at 1.07, will remain lower than the acute LTA of 1.23. Subsequently, the calculation of the ammonia limit would remain based upon the chronic criteria with an AMEL of 1.7 mg/L and an MDEL of 3.3 mg/L. The final effluent limits for ammonia would still be calculated according to the procedures outlined within the Tentative Order, which is in accordance with the SIP and USEPA. Thus, the limits for both the pH and ammonia would remain protective of downstream water quality, while not being overly restrictive.

Therefore, the City requests that the Instantaneous Maximum for pH be increased to 8.2.

The Interim Effluent Limitations for Total Coliform for the Secondary Effluent Should be Expressed as a Monthly Median.

The Tentative Order includes proposed interim effluent limits for Total Coliform Organisms of 23 MPN/100 mL, as a 7-day median. However, due to the fact that the Total Coliform analysis requires a minimum of 4 days to obtain results, it would not be feasible to evaluate the results of a test prior to sampling for the next test. Without taking samples in sequential days, it would not be possible to obtain multiple data points within 7 days, which would negate the intent of using a median value as a parameter in determining compliance. Additional sampling events in excess of that required by the Monitoring and Reporting Program would have to be consistently performed in order to

obtain multiple data points within a seven-day period, which would result in duplicative, unnecessary and costly sample analysis. Considering the relative precision of the total coliform analysis, it is prudent to allow the City time for another sample to be taken if the results of a single test show an elevated, but compliant daily maximum result. Further, the 30-day median period is consistent with recent permits adopted by the RWQCB. Table 1, below, shows multiple permits that stipulate a limit of 23 MPN as a monthly median.

Table 1 WWTPs with monthly median Total Coliform Limits for Secondary Effluent

Order Number	WWTP
R5-2007-0167	ANDERSON WATER POLLUTION CONTROL PLANT
R5-2010-0019	CHICO WATER POLLUTION CONTROL PLANT
R5-2010-XXXX	SC-OR WWTP
R5-2007-0058	STILLWATER WASTEWATER TREATMENT FACILITY
R5-2007-0041	RED BLUFF WASTEWATER RECLAMATION PLANT
R5-2010-XXXX	CORNING WWTP

Therefore, the City requests that the interim effluent limit for Total Coliform Organisms for the secondary effluent seasonal discharge be characterized as 23 MPN/100 mL, monthly median.

The Biosolids Requirements Should be Revised for Clarity and Consistency with the City's Program.

Within Section VI.C.5 of the Tentative Order substantial modifications have been made to the proposed biosolids requirements. The requirements within the Tentative Order appear to parallel the Statewide General Order for land application of biosolids (General Order). However, there appears to be significant inconsistencies between the requirements of the General Order and the requirements listed within the Tentative Order. The City requests that the requirements within the Tentative Order be revised to accurately reflect the requirements of the General Order.

Therefore, the following specific requirements should be revised:

- 1. Page 31, Section b. References to "biosolids disposal" should be changed to reflect the general order language of "biosolids beneficial use/disposal" as the biosolids are being used as a soil amendment and fertilizer when land applied.***

2. **Page 31, Section b. ii. The required report should be consistent with that required by the EPA to reduce the variability in reporting requirements and the effort needed to format a document. The report should have the same requirements as that required by the EPA and be due at the same time as the EPA report.**
3. **Page 32 - Section b. xii – The following should be added at the beginning of this paragraph: “If biosolids are applied to a site that is tilled, biosolids...”**
4. **Page 32 - Section b. xvii – The selection of a minimum soil pH of 6.5 does not seem to be based on any requirements of the General Order. This requirement should be eliminated or justification for the specific pH requirement provided.**
5. **Page 32 and 33 - sections b. xx. through xviii are applicable to Class B biosolids only. At the end of the title for each section that is specific to Class B biosolids, the words “for Class B biosolids.” should be added.**
6. **Page 33 – Section b.xx.d – This is not a sentence or requirement as written and should be deleted.**
7. **Page 34 – Section c.v. – This comment is in the storage section, so the phrase “biosolids application areas” should be deleted.**
8. **Page 34 – Sections c.v. and c.v.i. should be modified to more accurately reflect the General Order.**

The Quarterly Groundwater Monitoring Report Requirement Should be Removed.

Within Attachment E, the Monitoring and Reporting Program, a proposed requirement for quarterly groundwater reports prepared under the direct supervision of a registered engineer has been added. The City finds this requirement overly stringent and cost prohibitive. The City questions the rationale for such a requirement, in light of the fact that other NPDES permits with similar, seasonal irrigation discharges have not included such a requirement (Order No. R5-2007-0113, Order No. R5- 2009-0095). Data collected to date does not demonstrate an adverse impact of the wastewater on the groundwater. The City's operations staff are capable of conducting the sampling, and their contract laboratory can conduct the analysis necessary to confirm that the wastewater is not adversely impacting the groundwater. As such, there is no basis for requiring the unnecessarily sophisticated and costly evaluations and reports requested when the laboratory results submitted as part of the monitoring and reporting program will provide the information desired by the RWQCB staff.

Therefore, the requirement that the quarterly groundwater monitoring reports be prepared by a registered engineer should be removed.

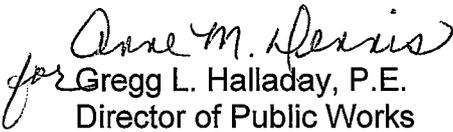
The Compliance Date for Copper within the Time Schedule Order Should be Revised to Consistently Identify 1 September 2015 as the Compliance Date.

Within the Time Schedule Order (TSO), item number 13 on page 3 and item number 2 on page 6 list the compliance date for copper as 1 September 2015. However, within item number 1 on page 6 of the TSO for copper is erroneously listed with the constituents having a compliance date of 1 November 2011.

The typographical error should be corrected and that the compliance date for copper consistently listed as 1 September 2015.

Thank you for your consideration of our comments. We ask that these requested changes be presented as revisions to the Tentative Order prior to the September hearing. Please contact Lisa Sanders at (209) 366-7277 if you have any questions or need any additional information regarding our comments.

Sincerely,


for Gregg L. Halladay, P.E.
Director of Public Works

Cc: Lisa Sanders, Sr. Civil Engineer
Dennis Longhofer, Utilities Superintendent
Bo Dahlberg, WWTP Supervisor
Scott Parker, Carollo Engineers
Bobbi Larson, Somach, Simmons & Dunn
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